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ON THE METHOD OF METAPHYSICS

EVERY metaphysical theory, whatever its type, gives primary importance to one pair of contrasted concepts. In fact we can define metaphysical thinking as that which follows the making of this distinction, and which attempts to make explicit the full meaning of these two concepts and their relation to each other. The discrimination is commonly expressed as that between the actual and the apparent, or between the existent and the seeming, or between the real and the phenomenal. We shall employ another term which has some important advantages, and shall express the distinction as between the real and the given. We wish to know the nature of the real; but we do not get that knowledge easily and directly: we must begin with something short of it, and must approach it through an earlier acquaintance with something which is original datum. If we hope to reach a general comprehension of reality we must found it upon the character of the given. Data of some kind are necessary material for any significant theory. We accept this as true in every science; and metaphysics is not exempt from the same condition. Indeed a recognition of this fact is of primary importance for an understanding of the method which should be followed.

From this underlying distinction it seems to follow quite clearly that any complete and acceptable doctrine should have two distinct parts, which we shall briefly characterize and then discuss more in detail.

First of all the theory must offer some account of the given simply as such. This part of a metaphysics would be entirely free, in an ideally successful case, from anything hypothetical. Certain data must be possessed, and must be granted as a foundation, if any ontological structure is to be raised at all. A statement of this original material ought to be possible without the admixture of any speculative and dubious factors. The natural scientists have accustomed us to a requirement of this kind. An impartial statement of any facts which are to be explained is a proper introduction to the statement of some theory which undertakes to make these facts more intelligible. In the problem of color-vision, for instance, there is a collection of phenomena which can be stated quite independently

of any theory which may be held concerning the retinal process. If the data were not formulated in the first place, without any speculative interpretation being allowed to slip into the account, the difficulty of finding an adequate theory would of course be immensely increased. This same ideal should hold in metaphysics. However difficult it may be in practise, the first aim should be a strictly non-hypothetical expression of the data from which the rest of the doctrine must be developed.

The second part of a valuable metaphysics must deal, on the contrary, chiefly with hypotheses. The datum is what it is, and we may suppose that its essential traits can be expressed. But our problem began by assuming it to be contrasted with something we name the real. A metaphysics could have no use for the conception of a reality which would not account at least for the main characteristics of the phenomenal fact; but various realities may be conceivable, each of which would be sufficient to account for these, and this range of possible alternatives must be examined. If some of the suppositions which we find ourselves inclined to make, or which have been urged in historical doctrines, are seriously self-contradictory, then of course that must be made plain: the incoherent must be simply excluded. If a theory, otherwise coherent, is incompatible with some part of the given, then that incompatibility must be observed and the theory must also be excluded. Should only one hypothesis as to the character of the real be able to survive these tests, then the demonstration of that fact would bring our ontology to a happy ending in a last chapter; and a last chapter would be a happy ending in itself. But if, as we shall consider probable, several diverse suppositions should remain tenable, then the most we can ask from a metaphysics is a clear statement of main alternative theories, and a recognition of any non-logical characteristics which may fairly make one theory preferable to another.

The data which should be formulated and described in the first part of an ideal theory are of course not to be identified merely with those experiences which especially arouse us to the problem of metaphysics. Striking experiences of change, deceived expectation, the disappearance of something from our world, the discovery of conflicting beliefs about the general character of the world, all these challenge us and make necessary the distinction between the apparent and the actual, the given and the real. In a sense one might say that these are the special data for the metaphysical theory to which they impel us. But its original material must include all that constitutes our experience. And this is not unavailable nor remote. There is no great difficulty in becoming aware of our datum, however difficult its adequate and pure description

may be. The simplest appreciation of it comes when one gives up all formulating of anything in words: a certain "this" remains, something which is at least concrete and multifarious. But of course our formulating is a fact too, as it occurs, and one which must have its own place in an account of the given. We must allow, or assert, that some actual interpreting of the data is itself a part of the data. But we can hardly deny that the possibility of reaching a metaphysical conclusion depends on our having something to interpret. Without a determinate material, which could be expressed as empirical fact, the terms phenomenal and real would be equally meaningless. And to say what this material is, without prejudice to any hypothesis of a more inclusive and trans-empirical reality, is the first problem of metaphysics.

If a description of the given is to be accomplished at all it must be obtained by some process of discrimination and analysis. Any account which purports to be descriptive of something concrete and individual presupposes that abstractions are made and a dissection performed. The possibility of this analysis, this discrimination of factors or traits, is difficult to deny in respect to anything which is in any way describable. Even a Bergsonian reality, which is asserted to be not portrayable as a complex, can still be significantly described by such various adjectives as continuous, active, tense, and so on. And other theories which undertake to deny that complexity can be accurately predicated of the real, allow nevertheless that the phenomenal world permits discrimination and has at least "main aspects" which accurate thinking must recognize.

Any understanding which proceeds by distinguishing and by abstracting must aim at some set of "primitive ideas" in which the analysis could terminate. If the analysis is expressed, some set of ultimate terms must be assumed, individually undefined but making others definable. So the most non-hypothetical account of the data of metaphysics must require some collection of concepts which are supposed simple, and which are obtained by a process of abstraction performed on the data themselves. We are inclined to believe that there must be some one particular analysis which is the single and only right means to an adequate comprehension of whatever is being analyzed. But there seems little to support this supposition. We ought not to take for granted, nor even to expect, that a metaphysics should contain only a single description of the given, and that it should be able to exclude every other description as faulty. A plurality of allowable descriptive formulations is the more reasonable expectation. That several analyses of a given material may be equally valid and practicable is strikingly illustrated in the field of symbolic logic. Alternative sets of primitive ideas may be em-

ployed with equal success, and an idea which is adopted as undefined and ultimate in one formulation may as properly be treated as complex and analyzable in another. The simplicity of a concept is not an intrinsic character which can be read by inspection, but it is something which the logician postulates after experiment with various tentative primitives. And in metaphysics we surely ought to take seriously the suggestion that the data which form our material may be analyzable with equal validity into more than one set of ultimate terms, and may be describable in more than one fashion with equal truth.

One expression of the given, one first broad formulation of it, would probably pass as acceptable to most common-sense people of our time. We think there is nothing hypothetical in saying at least that the given is an experienceable world of nature which includes our human society. But we must examine how much of this view can be retained in a statement which undertakes carefully to exclude all hypothesis; or rather, how far this must be re-phrased and translated, if its meaning is to be put into a strictly positivistic expression. Two types of answer may be mentioned, characteristic of divergent theories of psychology and appearing also in metaphysical doctrines which have contemporary interest.

The first answer would be: the given is experience, and experience is known without hypothesis or interpretation when it is analyzed into an order of simple qualities. All that common-sense finds as fact is held by this psychology to be accurately describable in this fashion, even of course one's own process of observing and analyzing. This kind of psychological analysis is evidently employed in Russell's theory of the physical world, with its doctrine of "particulars" and of the humorously named "official biographies." His elaborate hypothesis of perspectives and ordered classes of private spaces is thus actually based on it. But, once this qualitative analysis of experience has been admitted as valid of sense-perceptions, the other data, which he adopts in addition to the particulars, become also subject to the same possible treatment. The experience of being acquainted with a universal, for instance, is part of an actual biography too and is describable in the terms of this psychology.

The second type of answer is that which appears in the behaviorist psychology, rejecting the qualitative analysis of the given and making its own description in the terms of biological science. The philosophical theory represented by Dewey's *Reconstruction in Philosophy* stands on this ground also. In the reconstructed description of "experience," we are told, "the interaction of organism and environment . . . is the primary fact" That the datum is of this biological sort is not merely one hypothesis among others,

nor a hypothesis adopted simply because it is verified in use. For the nature of verification itself is explained, in this philosophy, in terms of the adaptive responses of organisms. This biological formulation is not offered as a useful speculative interpretation of some data which could be properly described without recourse to any such speculation; it is presented as a merely descriptive expression of the data themselves.

If there is any force in the suggestion that several non-hypothetical accounts of the given may be possible, the disparate character of these two types of description should not be taken as proving that at least one of them is wrong. But some quite different set of primitive ideas may be more successful. An account of the given which would put the term self among the undefined ultimates is surely a competitor with the others. The whole problem is still open, and although uncertainty as to the allowable formulations of the data upon which a metaphysics must rest is undesirable enough, at any rate there is nothing to be gained at present by merely assuming that only one formulation is allowable.

We have been taking for granted that the given is something within which various abstractions can be made, and which permits of such analysis as this implies. Without this character the possibility of analytic comprehension and of description would of course be lacking. And when we ask that our metaphysics should contain a purely descriptive part, we make an *a priori* determination of the given to this extent.

But it is not subject to any such elaborate predetermination as is the phenomenal world in a Kantian theory. All Kant's argument proceeds as the analysis of a certain concept of experience; and this concept is simply postulated. If we postulate the occurrence of a certain type of knowing-of-objects, if we make this our fundamental fact and datum, or in other words if we assume that the datum is to be described as a knowing of a specified kind, then indeed we can obtain some *a priori* characteristics of objects knowable in this way. The summary description of the experience can be expanded into a series of analytic judgments which merely make explicit the peculiarities of this postulated knowing; and from these judgments we can deduce some of the characteristics which must be possessed by anything which can be known in this particular fashion. But such assertions as that all experienceable objects must be temporal and spatial, and must consist of something which endures through all change, are in this case merely drawn out of the postulated character of the process concerned, and are analytic judgments. There is no way whatever of compelling any one to agree that the given is actually an object-knowing of this specified type. One can express

what one finds the given to be, and if it is finally formulated as a something-known-in-a-specified-way, then the concept of this type of experience can be analytically expressed. But the occurrence of this particular kind of experience is entirely a question of fact.

If we assume that a purely descriptive account of the given is possible, we still have to consider how wide a range of significance could be claimed for the primitive ideas required in it. They would have one meaning as abstractions from the given fact itself. Is it possible that they would have also a much larger application? Could they be used to give us some knowledge of a trans-empirical reality, perhaps of one from which the given would be logically derivable?

It is fairly clear that we could not attribute any such importance to these ideas. Suppose that an analysis of the merely given had been completed, and that a collection of terms had been reached which were adopted for that description as undefined and simple. In some other description they might conceivably be considered as complex and analyzable; but so long as we stick to any single description we could not treat any one of them as a possible source of others. It is not possible that any final term in a systematic formulation of the given could be taken as the concept of a metaphysical entity from which the concrete given would follow as a logical implication. The complex concept of the phenomenal fact can not be deduced from any item which a purely descriptive expression of the phenomenal may require: the analysis of the given can not disclose any logical source of it. Within experience we can not find any origin of experience. No concept obtained in the abstraction-process could be known to have any applicability except within the given itself. And, if our metaphysics is to contain anything more than a purely descriptive expression of the phenomenal, that additional content must be essentially hypothetical and speculative.

There is no obligation which would compel a person to carry his theory of the given beyond a simply positivistic description such as we have been supposing. And there is no obligation to attempt even a description. Abstractions are required by any one who wishes to know abstractly; but without that purpose they are not required at all. It might be objected, in behaviorist terms, that abstractions are required constantly by any organism which is to survive, since selective responses are a condition of its keeping alive. But we need not commit ourselves to this biological description. And we may be sure that the non-occurrence of a conceptual understanding would not annihilate the given. The mystics have a right to imagine this absence of abstract comprehension, and to produce it so far as they can. If the resulting experience is enlightening, however, the en-

lightenment must apparently remain incommunicable: what can not be conceived can hardly be described.

But the mystic state may be assumed a very rare accomplishment; actually we do dissect our world, and do use abstractions in comprehending it. Actually, also, we would not be satisfied with a philosophy which consisted in a mere description of phenomena. As metaphysics begins in the conviction that the given is to be distinguished from the real, so we are led to make a hypothetical extension of the given, and to suppose a more inclusive fact. All metaphysical thinking postulates this; and even the positivists and empiricists have in fact allowed their accounts of the world to contain a very considerable hypothetical element.

A metaphysical theory, then, ought to have a second part which is frankly and explicitly speculative in character. We can conceive of various trans-empirical reals; and we can see that there are degrees of compatibility between these several suppositions and the phenomena from which we must start. The problem is to determine, so far as we can, what types of reality would be consistent with the given as we find it to be, what various kinds of being might have this actual seeming. So long as we avoid self-contradiction in our assumptions we may surely use the greatest freedom in tentative and experimental suppositions, and may assume a reality of any imaginable extent or variety. There would be more fault in restricting hypotheses to traditional forms than in encouraging the most unchecked speculation. Men have probably suffered more from too limited a conception of possibilities than from too credulous an acceptance of mere speculations.

In the problem of a pure description we were led to suppose that more than one may be practicable; and in the problem of the hypothetical interpretation we find a somewhat similar situation. We take for granted that there is some unique and all-inclusive reality; but we should be slow to assume that the given is sufficient to carry us very far in determining its character. Certainly for the present, and while a satisfactory statement of the data is still in question, we are very far from any narrowly specified concept of a reality which alone is compatible with them.

There are, broadly, two main divergent developments which a speculative metaphysical theory may take. In a theory of one type, of which James's radical empiricism may serve as an instance, the real is supposed to be immensely more inclusive than the given, yet is supposed to be simply more of the same sort. The distinction is between a part and the whole, rather than between one kind of being and an essentially different kind. The other type of theory may be illustrated by Berkeley's doctrine of ideas and spirits:

there is supposed to be a reality which exceeds the given, not merely by including more of the same variety, but also and especially by including entities of a radically different kind. A theory of this second type is under obvious difficulties in drawing up a description of the real or reals which it assumes. The only significant terms at its disposal are those which are abstractions from the given; for the only source of the meaning of our words is in our concrete experience, and their only assured applicability is to it. But concepts can be constructed which are not descriptive of anything given, and they can be supposed to have some kind of trans-empirical significance.

If this is indeed the situation in metaphysical theory, the presumption would apparently be that some very different hypotheses are equally in agreement with all the facts we have. The business of our theory is probably to discover the allowable range of suppositions rather than to prove a certain one finally true. In each of the sciences we have found that in general the known facts in some problem limit the number of possible explanations, but do not establish any single one. There is no evident reason which would lead us to suppose that metaphysics is in a different case. The best obtainable result may be a set of mutually exclusive but equally tenable theories. Take the hypothesis, for instance, that every event is a required part in the fulfillment of some all-inclusive design. No actual occurrences can refute this, for any collection of events is conformable to some purpose or other: a teleological interpretation is always possible for anything that happens. But we find also that the contrary hypothesis is at least as tenable, and that many events may be supposed to have no purposive character.

The history of philosophy consists partly in a series of demonstrations that earlier supposed demonstrations were inconclusive. But a doctrine which fails to be established may retain some value as a speculative possibility. We hope, of course, that our data will lead us to a fairly specific knowledge of the nature of reality: but we may admit that a group of very diverse hypotheses about it is more probably accomplishable. One may recall the answer which Berkeley received to his appeals for the payment of Parliament's subsidy for his colony. Walpole replied that, speaking as minister, he could assure him the grant would be paid in due time; but speaking as a friend he advised him not to count on it.

The material which we try to understand has its own definite character, and any ontological suppositions must be adapted "to save the appearances." The phenomena are the first essential determi-

nant of any hypothesis about the real. But it may be useful to notice more carefully the relation which exists between the two.

The ideal of any doctrine about reality would be a deductive system, from which verifiable conclusions could be drawn concerning phenomena. Verification is not wholly an affair of the future. Present phenomena are a present criterion. If we can say what is given we can also prescribe some of the deductions which a satisfactory system must allow. These inferences are in fact simply begged and postulated, in advance of any knowledge as to how we may be able to obtain them. We must assume some real which can account for the occurrence of exactly this given. We try to find some way of deriving what we already accept as fact.

This method of reaching a set of principles is commonly discredited. When we discover that a person with whom we are arguing has already settled on his conclusion, and is merely making a determined hunt for premises which will justify him in holding it, we are inclined to be scornful of his procedure. We do not easily admit that we ourselves are given to rationalizing our convictions in this way; and we condemn the process even when we believe, in some particular case, that a man practically could not avoid the prejudice which he displays. We are apt to think that our metaphysics ought to be free from any trace of such rationalizing. But, in a very genuine sense, no theory of reality can be free from it. The essential undertaking is to discover principles from which would follow facts of the type we find. To understand the world *more geometrico* must still be the ideal of philosophy. But the modern theory of mathematics has shown more clearly what a geometry is; and another suggestion for metaphysics may be derived from this work.

Not until recent years has there been an adequate formulation of the primitive ideas and the postulates which underlie the old Euclidean geometry. We know now that the postulates of this geometry are not accepted because they are certain in themselves. If they are considered to have a superiority over certain other alternatives it lies in this, that they permit the deduction of some theorems which are believed to be more useful than those which would follow from the other postulates. The theory of relativity, however, now seems to have shown that the Euclidean theorems are inapplicable to some physical measurements, and that one of the non-Euclidean geometries is always applicable. If so, the postulates which go with this non-Euclidean geometry will be adopted without dispute, or at least without successful objection. In themselves Riemann's postulates are not more true nor less true than Euclid's; the truth value we attach to them is dependent on the practical acceptability of the theorems they generate.

A similar situation exists in metaphysics. If we could get a completed doctrine into systematic form we would place as the postulates of the system a set of propositions which had been reached by a process of experimentation and selection. They would not be given their place in the system because they were intrinsically true and obviously certain, but simply because they would furnish an adequate basis for the inference of some propositions which are simply taken for granted when the theory-making begins. We can not hope to find any ontological principles which are absolutely self-evident, which can be recognized at sight, and whose inherent certainty would guarantee the certainty of their implications. Any set of assertions about reality would be sufficiently and wholly justified if they permitted the inference of empirical facts which we already hold, and led to no inferences which are contrary to such facts. An illustration may be drawn even from Bergson's theory. Suppose we could properly assume that a simple description of the data already includes these facts: that instinct and intelligence are two different forms of knowing; that they have reached their highest development in insects and in men, respectively; that there is a constant origination of new forms of life; and that this spatial world is predominantly but not wholly mechanical. Then the assumption of a vital force such as Bergson describes (of the order of consciousness, active, tense, able to relax its tension, *etc.*) would be plausible just in proportion as it could be seen to involve the occurrence of this kind of a world. One may object that those alleged facts are not merely descriptive of the given, and that they already contain a hypothetical interpretation of the actual data. But in Bergson's argument, one may fairly say, they have the rôle of data; and the only question with which we are here concerned is the kind of justification which a proposed account of reality could have. If the data can be accurately formulated then that formulation will evidently be the touchstone of any ontological doctrine which may be proposed.

It would be logically possible, as we said, to give up the metaphysical problem altogether, and not to contrast the given with anything. But if the distinction between it and a reality is maintained, then the only account which we can produce of that reality must be hypothetical. A positive description of the given can not lead us to anything except abstractions made upon it. Analysis can not discover any factor in it which somehow again contains the original, and from which it might then be logically deduced. Any theory, also, of the type which holds that the phenomenal world has its source in a mind of a certain sort and is constituted by forms employed by various faculties of this mind, is evidently hypo-

thetical. Like any other hypothesis it must first be tested for internal coherence: if we deny temporality and causality to this mind we must consider whether it can be supposed to operate in any way; and if we assert that no other objects except sensible objects can be either given or validly conceived, we must consider whether we can know anything at all about a non-sensible mind. But supposing that no incoherence has been found in this hypothesis, it must seek its confirmation like any other candidate, by allowing deductions which we already accept and which are part of a description of the given.

The situation which we thus find in metaphysical theory is similar to that which has recently been developed in logic. The validity of the classical fundamental certainties, *i.e.*, those propositions whose denial implies their affirmation, is actually undisputed; but logically it is conditional and requires the assumption of a particular set of postulates for our logic. Other postulates could be adopted which would not require the truth-value to be assigned to such propositions; and these other postulates could be used without violation of consistency as they would define it. The postulates of our actual logic are accepted because they validate inferences which we consider good, and not because they themselves are separately and individually indubitable. We have to work backward to discover the principles which we are actually implying. And the formulation of an adequate set of primitive ideas and postulates for our logic, although now it has probably been accomplished, is not even yet a matter of agreement among the symbolic logicians.

In our metaphysics, then, if we can obtain a description of our data it will serve to limit the number of hypotheses which can be held concerning the nature of reality; and the deducibility of the chief characteristics of such data must be the main test by which any proposed ontological doctrine should be judged. If, as we have supposed, it should prove possible to make more than one valid description of the given, we may believe the number of tenable hypotheses would be thereby still further reduced; but until we are more certain about our descriptions we can hardly take for granted that the specification of reality can be carried very far even in this fashion. We are not sure how to express the given; and we are quite sure, when we stop to consider, that our understanding of the world is partly an interpretation and a supposition. We realize occasionally that our active beliefs are held in the face of other possible assumptions which have quite as good a logical standing. It would be proper, then, for a systematic metaphysics to give some recognition to the non-logical features by which some hypotheses acquire a weighted value for us. Two of these may be mentioned. Some

speculations we discard as wild and extravagant, though we can by no means show that they are inherently impossible. We take Occam's razor as our best implement: not to destroy all hypotheses, but to insure a comely simplicity among the survivors. At bottom the motive for this is esthetic. Whatever alternative theories may be allowed as logically tenable, we admit a differential value of this kind among them. Furthermore, of two suppositions which are, so far as we see, in equal agreement with the data, one may be actually dispiriting and the other may be effectively stimulating. Hypotheses have what may be called a moral aspect as well as an esthetic. Great individual differences must be recognized in the valuations which men make on this score: the whole topic leads off into psychological problems. But one is justified in holding that a metaphysical theory may properly take notice of all the main features which make one ontological hypothesis more acceptable than another.

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CRITICAL REALISM

WHEN *The New Realism* was published, nine years ago, some observers professed much surprise at the spectacle of philosophers laboring side by side in a common cause, without any discernible tendency on the part of any one of them to turn upon and rend his neighbor. Since then, however, the achievement has been duplicated in the volume entitled *Creative Intelligence*; so that the philosophical public is in process of becoming habituated to the phenomenon. Whether these joint undertakings are evidence, as some seem to suppose, that philosophy is at last to enter upon an era of truly objective and rigidly impersonal inquiry, after the manner of the sciences, or merely that philosophers possess a hitherto unsuspected capacity for coöperation, is still a question upon which it is useless to look for agreement. The latest volume of this kind is the recent *Essays In Critical Realism*,¹ the purpose of which is to expound and defend the realistic faith which the contributors to the volume hold as a common possession.

As compared with the earlier books, this work offers a comparatively simple programme or plan of campaign, in that it is centered almost exclusively upon the nature of knowing. Five of the seven essays are devoted to this topic. As is stated in the preface, the authors have "found it entirely possible to isolate the problem of

¹ *Essays in Critical Realism: A Coöperative Study of the Problem of Knowledge*. DURANT DRAKE, ARTHUR O. LOVEJOY, JAMES BISSETT PRATT, ARTHUR K. ROGERS, GEORGE SANTAYANA, ROY WOOD SELLARS, C. A. STRONG. Macmillan & Co. 1920.